Mohit Soni

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Work Experience

BrickRed Systems
Seattle, WA
AI Software Developer Intern — Jun 2024 - Present

- Contributing to development of EchoMD, an AI-powered platform designed to revolutionize healthcare and patient record documentation, as part of a team of 25 people.
- Developed and fine-tuned NLP algorithms in Python using libraries such as NLTK and SpaCy to accurately transcribe doctor-patient dialogues in real-time. Trained and deployed models using TensorFlow.
- Implemented backend services using Django & Flask. Developed RESTful APIs to handle real-time data processing and ensure efficient storage of transcribed data.
- Enabled healthcare professionals to focus more on patient care by automating the Electronic Medical Record (EMR) process, leading to a 30% reduction in documentation time and a 25% increase in record accuracy.

Cornell University
Ithaca, NY
Researcher — Nov 2023 - Present

- Mentored by Professor Madhur Srivastava as part of the Signal Science Lab.
- Leading research initiative focused on developing an algorithm to discern flaws in cricket batsman's techniques through detailed video analysis. The algorithm aims to examine stance, footwork, bat swing, and shot selection, during a practice session.
- Crafted an innovative algorithm for video segmentation, employing pose estimation and dynamic time warping to filter out redundant frames, ensuring only frames with relevant movement are captured.

Outlier
Remote
Independent Contractor — Nov 2023 - Present

- Responsible for reviewing and coding computer science tasks, earning based on accuracy of submissions.
- Simultaneously managing 12 projects involving Java, Python, JavaScript, C#, C++, SQL, PHP, etc.
- Successfully completed 100+ tasks maintaining a high accuracy.

SparkSIP
Remote
Machine Learning Intern — Jun 2022 - Sep 2022

- Classified DNA electrical signatures to their code using Random Forests, Neural Networks, and SVMs.
- Presented progress to 2 University of Washington Seattle Professors using PowerBI.
- Wrote in-depth research paper summarizing my methods and results.

Project Sidewalk - Makeability Lab at the University of Washington Seattle
Seattle, WA
Web Development & Machine Learning Intern — Apr 2022 - Sep 2022

- Fixed 15-20 bugs involving JavaScript, Scala, CSS, and HTML.
- Managed GitHub repository with a 40-member team.
- Cleaned data using Excel & Python and presented insights to computer vision team.

Skills

Web Development:	Bootstrap, React, Streamlit, EJS, Flask, Node.js, Express.js, Django, SQL, MongoDB
Data Science:	Python, PowerBI, Pandas, Numpy, Tensorflow, Scikit-learn, NLTK, Plotly, NLP
Additional:	Java, C++, C#, Visual Studio Code, Jupyter Notebooks, Google Colab, Kaggle

Projects

Weakness Detector Research *Pandas, Numpy, Scikit-learn*
https://tinyurl.com/mrxr95rr

Cricket Application capable of finding weaknesses of cricket players based on past performances using Random Forest ML model with accuracy of 90%.

ML Model Insights App *Streamlit, Pandas, Numpy, Matplotlib*
https://algo-insights.streamlit.app/

Application that allows users to quickly evaluate multiple ML models on an uploaded/chosen dataset both numerically and visually without writing any code.

Morning Star Web Scraping Website *Flask, SQLite, Selenium*
https://tinyurl.com/mrx9mvya

An application that scrapes morning star to find data corresponding to the saved tickers in the database, inputted by the user. The website allows users to add/delete tickers and refresh the displayed data.

Valuable Courses

CS 4780 (Cornell University) Learned mathematical basis of machine learning models/concepts such as KNN, Naïve Bayes, SVMs, Kernels, Ensembles, Neural Networks, Bias vs. Variance, etc.
Aug 2022

The Complete 2022 Web Development Bootcamp (Udemy) Gained expertise in frontend (Bootstrap, React), backend (Node.js, Express.js, EJS), databases (SQL, MongoDB, Mongoose).
Dec 2022

Education

Cornell University
Ithaca, NY
Computer Science in the College of Engineering, Major GPA - 3.85
May 2026